2N6497
2N6498
2N6499

SILICON
NPN POWER TRANSISTORS

TO-220 CASE

Central Semiconductor Corp.

www.centralsemi.com

DESCRIPTION:

The CENTRAL SEMICONDUCTOR 2N6497, 2N6498, and 2N6499 are silicon NPN power transistors designed for high voltage amplifier applications.

MARKING: FULL PART NUMBER

MAXIMUM RATINGS: (T_C=25°C)	**SYMBOL**	**2N6497**	**2N6498**	**2N6499**	**UNITS**
Collector-Base Voltage	V_{CBO}	350	400	450	V
Collector-Emitter Voltage	V_{CEO}	250	300	350	V
Emitter-Base Voltage	V_{EBO}		6.0		V
Continuous Collector Current	I_C		5.0		A
Peak Collector Current	I_{CM}		10		A
Continuous Base Current	I_B		2.0		A
Power Dissipation	P_D		80		W
Operating and Storage Junction Temperature	T_J, T_{stg}		-65 to +150		°C
Thermal Resistance	Θ_{JC}		1.56		°C/W

ELECTRICAL CHARACTERISTICS: (T_C=25°C unless otherwise noted)

		2N6497		**2N6498**		**2N6499**		
SYMBOL	**TEST CONDITIONS**	**MIN**	**MAX**	**MIN**	**MAX**	**MIN**	**MAX**	**UNITS**
I_{CEX}	V_{CE}=Rated V_{CBO}, V_{BE}=1.5V	-	1.0	-	1.0	-	1.0	mA
I_{CEX}	V_{CE}=½Rated V_{CBO}, V_{BE}=1.5V, T_C=100°C	-	10	-	10	-	10	mA
I_{EBO}	V_{EB}=6.0V	-	1.0	-	1.0	-	1.0	mA
BV_{CEO}	I_C=25mA	250	-	300	-	350	-	V
$V_{CE(SAT)}$	I_C=2.5A, I_B=500mA	-	1.0	-	1.25	-	1.5	V
$V_{CE(SAT)}$	I_C=5.0A, I_B=2.0A	-	5.0	-	5.0	-	5.0	V
$V_{BE(SAT)}$	I_C=2.5A, I_B=500mA	-	1.5	-	1.5	-	1.5	V
$V_{BE(SAT)}$	I_C=5.0A, I_B=2.0A	-	2.5	-	2.5	-	2.5	V
h_{FE}	V_{CE}=10V, I_C=2.5A	10	75	10	75	10	75	
h_{FE}	V_{CE}=10V, I_C=5.0A	3.0	-	3.0	-	3.0	-	
f_T	V_{CE}=10V, I_C=250mA, f=1.0MHz	5.0	-	5.0	-	5.0	-	MHz
C_{ob}	V_{CB}=10V, I_E=0, f=100kHz	-	150	-	150	-	150	pF
t_r	V_{CC}=125V, I_C=2.5A, I_{B1}=0.5A	-	1.0	-	1.0	-	1.0	µs
t_s	V_{CC}=125V, I_C=2.5A, V_{BE}=5.0V, I_{B1}=I_{B2}=0.5A	-	2.5	-	2.5	-	2.5	µs
t_f	V_{CC}=125V, I_C=2.5A, I_{B1}=I_{B2}=0.5A	-	1.0	-	1.0	-	1.0	µs

R1 (31-July 2013)

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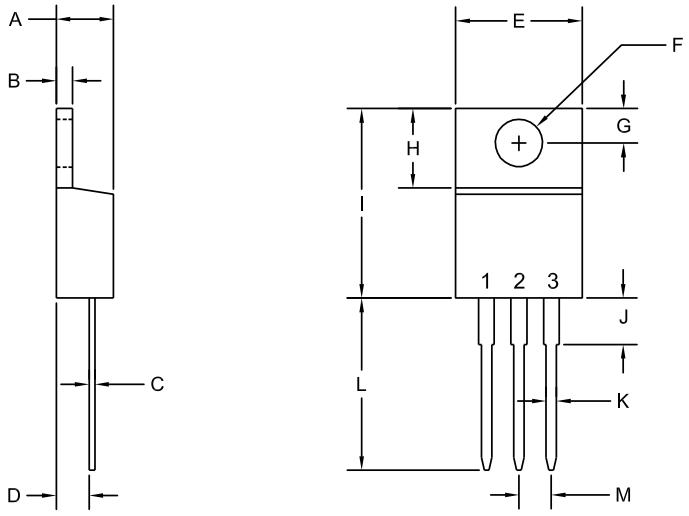
TO-220 CASE - MECHANICAL OUTLINE



R2

LEAD CODE:
1) Base
2) Collector
3) Emitter
Tab) Collector

MARKING:
FULL PART NUMBER

DIMENSIONS				
	INCHES		MILLIMETERS	
SYMBOL	MIN	MAX	MIN	MAX
A	0.170	0.190	4.31	4.82
B	0.045	0.055	1.15	1.39
C	0.013	0.026	0.33	0.65
D	0.083	0.107	2.10	2.72
E	0.394	0.417	10.01	10.60
F (DIA)	0.140	0.157	3.55	4.00
G	0.100	0.118	2.54	3.00
H	0.230	0.270	5.85	6.85
I	0.560	0.625	14.23	15.87
J	-	0.250	-	6.35
K	0.025	0.038	0.64	0.96
L	0.500	0.579	12.70	14.70
M	0.090	0.110	2.29	2.79

TO-220 (REV: R2)

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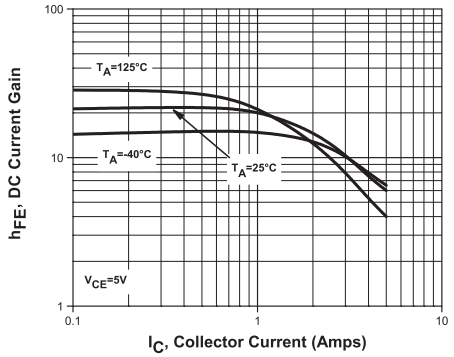
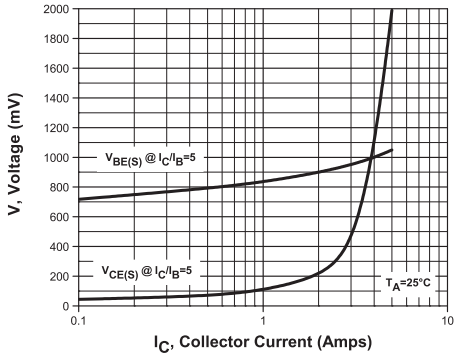
TYPICAL ELECTRICAL CHARACTERISTICS

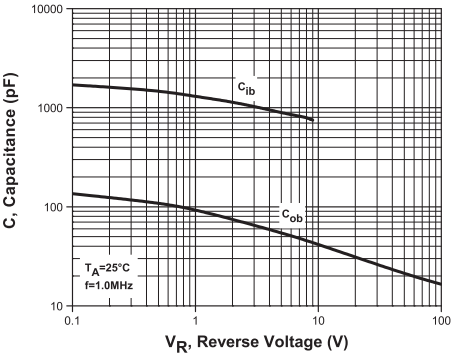
DC Current Gain



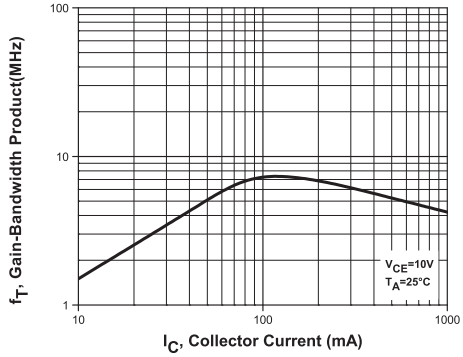
"ON" Voltage



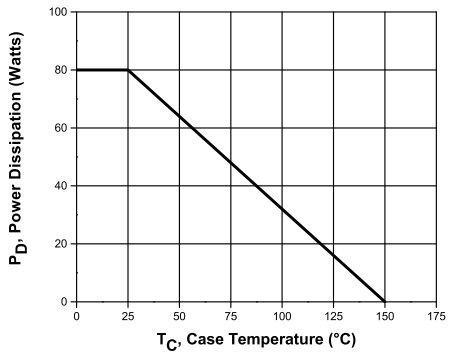
Capacitance



Current Gain-Bandwidth Product



Power Derating



R1 (31-July 2013)

OUTSTANDING SUPPORT AND SUPERIOR SERVICES

PRODUCT SUPPORT

Central's operations team provides the highest level of support to insure product is delivered on-time.

- Supply management (Customer portals)
- Inventory bonding
- Consolidated shipping options
- Custom bar coding for shipments
- Custom product packing

DESIGNER SUPPORT/SERVICES

Central's applications engineering team is ready to discuss your design challenges. Just ask.

- Free quick ship samples (2nd day air)
- Online technical data and parametric search
- SPICE models
- Custom electrical curves
- Environmental regulation compliance
- Customer specific screening
- Up-screening capabilities
- Special wafer diffusions
- PbSn plating options
- Package details
- Application notes
- Application and design sample kits
- Custom product and package development

REQUESTING PRODUCT PLATING

1. If requesting Tin/Lead plated devices, add the suffix " TIN/LEAD" to the part number when ordering (example: 2N2222A TIN/LEAD).
2. If requesting Lead (Pb) Free plated devices, add the suffix " PBFREE" to the part number when ordering (example: 2N2222A PBFREE).

CONTACT US

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